

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA

THE TRUSTEES OF
PURDUE UNIVERSITY,

Plaintiff,

v.

WOLFSPEED, INC.,

Defendant.

Civil Action No. 1:21-cv-840

JURY TRIAL DEMAND

ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

The Trustees of Purdue University files this its Original Complaint for Patent Infringement against Defendant Wolfspeed, Inc., known as Cree, Inc. before October 4, 2021, as follows:

PARTIES

1. Plaintiff The Trustees of Purdue University (“Purdue”) is a statutory body corporate created by and existing under Indiana law, charged by Indiana law with the responsibility for operating Purdue University, and the assignee and exclusive owner of all rights, title, and interest in U.S. Patent Nos. 7,498,633 and 8,035,112 (the “Patents-in-Suit”). Purdue’s principal place of business is at 610 Purdue Mall, West Lafayette, Indiana 47907.

2. Founded in 1869, Purdue is a public land-grant research university under the 1862 Morrill Act that is consistently ranked among the top universities in the world. Purdue

enrolls more than 40,000 students under the guidance of over 16,000 faculty and staff. In September of 2020, U.S. News & World Report ranked Purdue the fifth most innovative school in the United States. Purdue's professional and graduate programs include the well-ranked College of Engineering, Krannert School of Management, College of Education, and College of Pharmacy. Purdue's esteemed School of Aeronautics and Astronautics within the College of Engineering is known as the "Cradle of Astronauts" for producing twenty-six astronauts, including Neil Armstrong and Gus Grissom. Other notable Purdue alumni are Nobel Prize winners Edward Mills Purcell, Ben Roy Mottelson, and Akira Suzuki. Purdue has also generated twenty-four National Academy of Engineering members.

3. Purdue is Indiana's primary driver for economic growth in science and technology. For example, Purdue spent over \$435 million on research during the 2019-2020 fiscal year, founded more than 80 technology startups, and raised more than \$96 million in venture capital funding. In 2019, according to the National Academy of Inventors and Intellectual Property Owners Association's annual report, Purdue ranked thirteenth globally for receiving U.S. utility patents. This distinction marks the sixth straight year that Purdue has ranked in the top twenty.

4. Purdue is an instrumentality of the State of Indiana, created and authorized by the Indiana General Assembly under Indiana Code §§ 21-23-2-1 *et seq.*, and thus enjoys sovereign immunity. *Kashani v. Purdue Univ.*, 813 F.2d 843, 845 (7th Cir. 1987); *Wasserman v. Purdue Univ.*, 431 F. Supp. 2d 911, 916 (N.D. Ind. 2006) ("[T]he Board of

Trustees [of Purdue] is a political arm of the state which is immune to suit.”); *Harris v. Trustees of Purdue Univ.*, No. 1:16-cv-00824-TWP-MPB, 2017 WL 529598, at *2 (S.D. Ind. Feb. 8, 2017).

5. Purdue’s participation in this proceeding is not consent to the power of any court sitting outside of this District. Purdue does not waive any attribute of sovereignty owing to the State of Indiana and Purdue’s status as an arm of the same. Purdue does not waive immunity to *inter partes* review, *ex parte* reexamination, or other post-grant proceedings at the United States Patent and Trademark Office (“USPTO”). Purdue does not waive immunity to any noncompulsory counterclaims, or to any other federal or state proceedings whatsoever, whether or not initiated by Defendant.

6. Defendant Wolfspeed, Inc. (“Wolfspeed”) is a North Carolina corporation with its principal place of business at 4600 Silicon Drive, Durham, North Carolina 27703-8475, and can be served through its registered agent, Bradley D. Kohn, at this same address.

7. Wolfspeed makes and sells various silicon carbide metal oxide semiconductor field effect transistors (SiC MOSFETs), such as C2M0040120D.

JURISDICTION AND VENUE

8. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the Patent Laws of the United States, 35 U.S.C. §§ 1 *et seq.*

9. This Court has personal jurisdiction over Wolfspeed because Wolfspeed is a resident of this District and the State of North Carolina, as it is registered and has its principal place of business in this District.

10. Furthermore, Purdue's causes of action arise from Wolfspeed's contacts with and activities in this District and the State of North Carolina. Wolfspeed has committed acts that infringe the Patents-in-Suit within this District and the State of North Carolina by making, using, selling, offering for sale, and/or importing in or into this District and elsewhere in the State of North Carolina infringing products. Wolfspeed makes, uses, sells, offers for sale, ships, distributes, advertises, promotes, and/or otherwise commercializes such infringing products in this District and the State of North Carolina. Wolfspeed regularly conducts and solicits business in, engages in other persistent courses of conduct in, and/or derives substantial revenue from goods and services provided to residents of this District and the State of North Carolina.

11. Venue is proper in this District under 28 U.S.C. § 1400(b) because Wolfspeed is a resident of this District, where it is registered and headquartered.

12. Purdue does not waive its sovereign immunity as to any venue, including district courts and administrative tribunals, other than this Court, namely the United States District Court for the Middle District of North Carolina.

THE '633 PATENT

13. On March 3, 2009, U.S. Patent No. 7,498,633 ("'633 Patent"), entitled "High-Voltage Power Semiconductor Device," was duly and legally issued by the USPTO. A true and correct copy of the '633 Patent is attached as Exhibit A.

14. The '633 Patent issued from U.S. Patent Application No. 11/338,007, which was filed on January 23, 2006 and claims priority to U.S. Provisional Application No. 60/646,152, which was filed on January 21, 2005.

15. The '633 Patent relates generally to semiconductor devices, and more particularly to useful, novel, and non-obvious semiconductor devices for high-voltage power applications.

16. The inventors of the '633 Patent are James A. Cooper, Ph.D. and Asmita Saha, Ph.D.

17. Purdue is the owner of all rights, title, and interest in and to the '633 Patent with full right to enforce the '633 Patent, including the right to recover for past infringement damages and the right to recover future royalties, damages, and income. On May 2, 2006, as recorded with the USPTO on May 18, 2006, Drs. Cooper and Saha assigned their rights and interests in the '633 Patent to Purdue Research Foundation. Thereafter, Purdue Research Foundation assigned its rights and interest in the '633 Patent to Purdue on June 18, 2021, as recorded with the USPTO on June 21, 2021.

18. Every claim of the '633 Patent is valid and enforceable and enjoys a statutory presumption of validity pursuant to 35 U.S.C. § 282.

19. All requirements under 35 U.S.C. § 287 have been satisfied with respect to the '633 Patent.

20. Wolfspeed has never, either expressly or impliedly, been licensed under the '633 Patent.

THE '112 PATENT

21. On October 11, 2011, U.S. Patent No. 8,035,112 (the "'112 Patent"), entitled "SiC Power DMOSFET with Self-aligned Source Contact," was duly and legally issued by the USPTO. A true and correct copy of the '112 Patent is attached as Exhibit B.

22. The '112 Patent issued from U.S. Patent Application No. 12/429,176, which was filed on April 23, 2009 and claims priority to U.S. Provisional Application No. 61/047,274, which was filed on April 23, 2008.

23. The '112 Patent relates generally to semiconductor field effect transistors, and more particularly to useful, novel, and non-obvious field effect transistors having self-aligned source contacts.

24. The inventors of the '112 Patent are Drs. Cooper and Saha.

25. Purdue is the owner of all rights, title, and interest in and to the '112 Patent with full right to enforce the '112 Patent, including the right to recover for past infringement damages and the right to recover future royalties, damages, and income. On July 6, 2009, as recorded with the USPTO on August 7, 2009, Drs. Cooper and Saha assigned their rights and interests in the '112 Patent to Purdue Research Foundation.

Thereafter, Purdue Research Foundation assigned its rights and interest in the '112 Patent to Purdue on June 18, 2021, as recorded with the USPTO on June 18, 2021.

26. Every claim of the '112 Patent is valid and enforceable and enjoys a statutory presumption of validity pursuant to 35 U.S.C. § 282.

27. All requirements under 35 U.S.C. § 287 have been satisfied with respect to the '112 Patent.

28. Wolfspeed has never, either expressly or impliedly, been licensed under the '112 Patent.

THE INVENTORS

29. Dr. Cooper is a Jai N. Gupta Professor Emeritus of Electrical and Computer Engineering at Purdue and received his Ph.D. from Purdue in 1973. From 1973 to 1983, Dr. Cooper was a member of Technical Staff with Bell Laboratories, Murray Hill, NJ, where he was a Principal Designer of AT&T's first CMOS microprocessor and developed a time-of-flight technique for investigating high-field transport in silicon inversion layers. He joined the Purdue faculty in 1983, where he was the Founding Director of the Purdue Optoelectronics Research Center. Since 1990, Dr. Cooper has explored device technology in the wide bandgap semiconductor SiC (silicon carbide). His group demonstrated the first monolithic integrated circuits in SiC (1993), the first planar DMOS power transistors (1996), the first lateral DMOSFETs (1997), the first self-aligned short-channel DMOSFETs (2003), and a variety of other devices.

30. Dr. Saha was Dr. Cooper's student and, under his guidance, earned her doctorate from Purdue's School of Electrical and Computer Engineering, Birck Nanotechnology Center. Her thesis focused on optimized design and simulation and fabrication of 4H-SiC short-channel DMOSFETs.

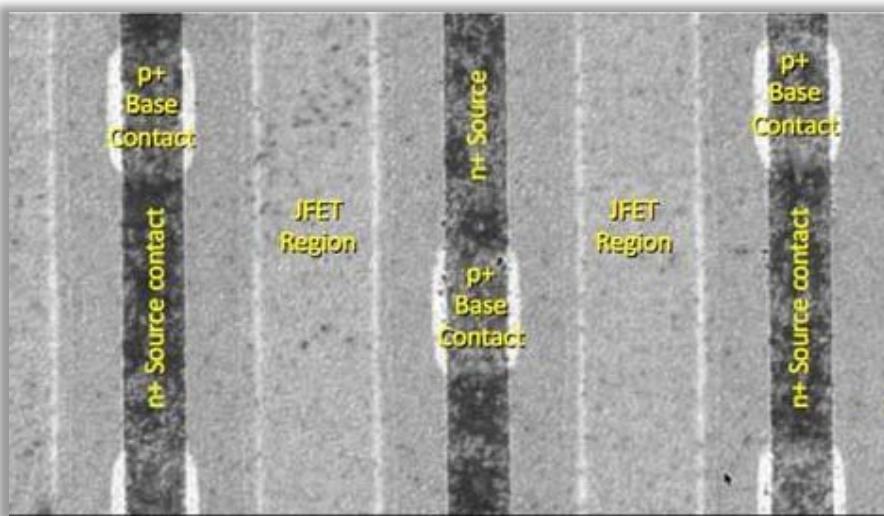
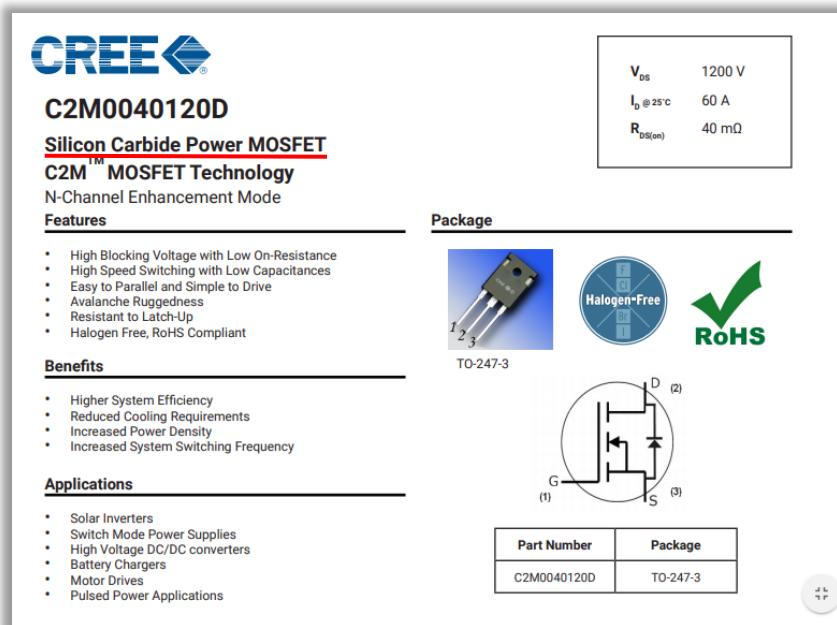
INFRINGEMENT OF THE '633 PATENT

31. Wolfspeed has and continues to directly and/or indirectly (by inducement and/or contributory infringement) and willfully infringe one or more claims of the '633 Patent in violation of 35 U.S.C. § 271, including, but not limited to claim 9.

32. Wolfspeed has and continues to directly infringe the '633 Patent, literally and/or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing in or into the United States, without authority, products that fall within the scope of one or more claims of the '633 Patent in violation of 35 U.S.C. § 271(a), including, but not limited to the following SiC power MOSFETs: C2M0280120D, C2M0160120D, C2M0080120D, C2M0040120D, C2M0025120D, C2M1000170J, C2M1000170D, C2M0080170P, C2M0045170P, C2M0045170D, C3M0060065K, C3M0060065J, C3M0060065D, C3M0015065K, C3M0015065D, E3M0280090D, E3M0120090D, E3M0065090D, C3M0280090J, C3M0280090D, C3M0120090J, C3M0120090D, C3M0065090J, C3M0065090D, C3M0030090K, C3M0120100K, C3M0120100J, C3M0065100K, C3M0065100J, C3M0350120J, C3M0350120D, C3M0160120J, C3M0160120D, C3M0075120K, C3M0075120J, C3M0075120D, C3M0032120K,

C3M0032120D, C3M0021120K, C3M0021120D, C3M0016120D, and C3M0016120K (collectively, the “Accused Products”), as shown in Exhibit C.¹

33. For example, each of the Accused Products (such as C2M0040120D) is a double-implanted MOSFET.



¹ This chart is exemplary of all Accused Products.

34. Each of the Accused Products includes a silicon carbide substrate, a drift semiconductor layer formed on the front side of the substrate, a first source region, a first source electrode formed over the first source region defining a longitudinal axis, and a plurality of first base-contact regions defined in the first source region, each of which spaced apart from the other in a direction parallel to the longitudinal axis defined by the first source electrode.

35. Each of the Accused Products also includes a second source region, a second source electrode formed over the second source region defining a longitudinal axis, and a plurality of second base contact regions defined in the second source region, each of which spaced apart from the other in a direction parallel to the longitudinal axis defined by the second source electrode.

36. Each of the Accused Products also includes a JFET region, with a width less than about three micrometers, defined between the first source region and the second source region.

37. Purdue adopts and incorporates by reference as if fully stated herein, the attached exemplary claim chart (Exhibit C), which further describes and demonstrates how Wolfspeed infringes at least claim 9 of the '633 Patent. In addition, Purdue alleges that Wolfspeed infringes one or more additional claims of the '633 Patent in a similar manner.

38. Wolfspeed is and has been aware of the '633 Patent and its coverage of SiC MOSFETs since as early as December 18, 2014, when the USPTO expressly notified Wolfspeed of the '633 Patent in connection with prosecution of U.S. Patent Application

Serial No. 13/962,295, and potentially earlier. Additionally, the '633 Patent has been cited during the prosecution of U.S. Patent Applications that led to the following Wolfspeed patents: US9673283, US9640617, US9373617, US9142662, US10600903, and US10868169. Thus, as early as December 18, 2014, Wolfspeed has been aware that its actions as to importers, distributors, resellers, wholesalers, retailers, and/or end users of the Accused Products would induce infringement.

39. Wolfspeed is and has also been aware of the '633 Patent and its coverage of SiC power MOSFETs, including at least the Accused Products, since April 2021, when Purdue sent Wolfspeed (then known as Cree) a notice letter, and no later than service of this Complaint.

40. Despite such awareness of the '633 Patent and its coverage of SiC power MOSFETs, including at least the Accused Products, Wolfspeed continues to take active steps (*e.g.*, creating and disseminating the Accused Products and other SiC power MOSFETs with similar infringing technology, as well as product manuals, instructions, promotional and marketing materials, and/or technical materials to distributors, resellers, wholesalers, retailers, and end-users) by encouraging others to infringe the '633 Patent with the specific intent to induce such infringement. For example, Wolfspeed directs customers to purchase the Accused Products from various distributors on its website, *e.g.* at <https://www.wolfspeed.com/products/power/sic-mosfets/1200v-silicon-carbide-mosfets>:

Apply Filters													
Package	+	Current Rating	+	R _{min} at 25°C	+								
Product SKU	Buy Online	Regional Group	Data Sheet	Blocking Voltage	Power at 25°C	Generation	Current Rating	Gate Charge Total	Output Capacitance	Total Power Dissipation (Pd)	Maximum Junction Temperature	Package	Remove
C2M0040120D			Data Sheet	1200 V	40 mΩ	Gen 2	80 A	115 nC	150 pF	330 W	150 °C	TO-247-3	No
C2M0080120D			Data Sheet	1200 V	40 mΩ	Gen 2	80 A	115 nC	150 pF	330 W	150 °C	TO-247-3	No
C2M0160120D			Data Sheet	1200 V	40 mΩ	Gen 2	80 A	115 nC	150 pF	330 W	150 °C	TO-247-3	No
C2M0280120D			Data Sheet	1200 V	40 mΩ	Gen 2	80 A	115 nC	150 pF	330 W	150 °C	TO-247-3	No
C2M0075120K			Data Sheet	1200 V	40 mΩ	Gen 2	80 A	115 nC	150 pF	330 W	150 °C	TO-247-4	Yes
C2M0075120J			Data Sheet	1200 V	40 mΩ	Gen 2	80 A	115 nC	150 pF	330 W	150 °C	TO-247-4	Yes
C2M0040120D - Distributors													X
Out of Stock													
Distributor	Stock*	Buy Online											
	0	Buy Now											
	0	Buy Now											
	0	Buy Now											
	0	Buy Now											
Powered By Octopart													* Stock values are subject to change
C2M0030120D			Data Sheet	1200 V	21 mΩ	Gen 3	81 A	181 nC	180 pF	468 W	175 °C	TO-247-3	Yes
C2M0150120J			Data Sheet	1200 V	21 mΩ	Gen 3	81 A	181 nC	180 pF	468 W	175 °C	TO-247-3	Yes
C2M0160120D			Data Sheet	1200 V	21 mΩ	Gen 3	81 A	181 nC	180 pF	468 W	175 °C	TO-247-3	Yes
C2M0160120J			Data Sheet	1200 V	21 mΩ	Gen 3	81 A	181 nC	180 pF	468 W	175 °C	TO-247-3	Yes
Where To Buy													
C2M0221120D			Data Sheet	1200 V	21 mΩ	Gen 3	81 A	181 nC	180 pF	468 W	175 °C	TO-247-3	Yes
C2M0025120D			Data Sheet	1200 V	29 mΩ	Gen 2	81 A	181 nC	220 pF	465 W	175 °C	TO-247-3	No

See also <https://www.wolfspeed.com/where-to->

[buy/?continent=na&country=us&productLine=power](#) (listing Cree distributors);

<https://www.wolfspeed.com/power/products/sic-mosfets/1200v-silicon-carbide-mosfets>

(providing datasheets, application notes, test reports, and articles concerning the Accused

Products) (last visited Oct. 28, 2021).

41. Wolfspeed has continued making, using, offering for sale, selling, and importing the Accused Products despite an objectively high likelihood that its actions infringe at least one claim of the '633 Patent—a valid and enforceable patent, and such objective risk of infringement was known to Wolfspeed or so obvious that Wolfspeed should have known it. Therefore, Purdue is entitled to receive enhanced damages up to

three times the amount of actual damages for Wolfspeed's willful infringement pursuant to 35 U.S.C. § 284.

42. Wolfspeed's direct, indirect, and willful infringement of the '633 Patent has caused, and will continue to cause, substantial damage to Purdue. Purdue is, therefore, entitled to an award of damages adequate to compensate for Wolfspeed's infringement of the '633 Patent, but in no event less than a reasonable royalty for Wolfspeed's use and/or sale of Purdue's invention, together with pre and post-judgment interest, attorneys' fees, and costs as fixed by the Court under 35 U.S.C. §§ 284 and 285.

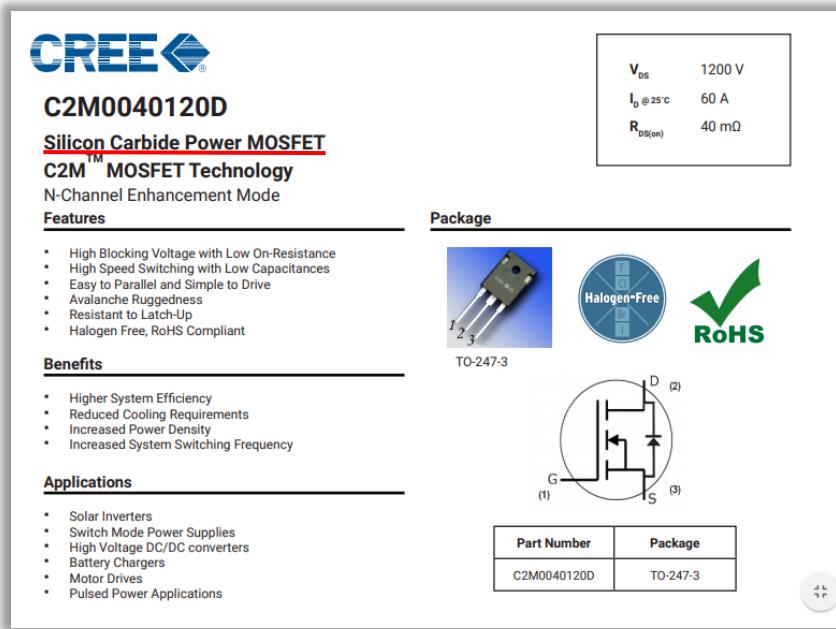
INFRINGEMENT OF THE '112 PATENT

43. Wolfspeed has and continues to directly and/or indirectly (by inducement and/or contributory infringement) and willfully infringe one or more claims of the '112 Patent in violation of 35 U.S.C. § 271, including, but not limited to claim 6.

44. Wolfspeed has and continues to directly infringe the '112 Patent, literally and/or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing in or into the United States, without authority, the Accused Products, which fall within the scope of one or more claims of the '112 Patent in violation of 35 U.S.C. § 271(a), as shown in Exhibit D.²

45. For example, each of the Accused Products (such as C2M0040120D) is a silicon carbide MOSFET.

² This chart is exemplary of all Accused Products.



46. Each of the Accused Products includes a silicon carbide wafer having a substrate body with an upper surface, at least one source region formed adjacent to the upper surface, a substrate surface oxidation layer on the substrate body's upper surface and the source region, and at least two polysilicon gates above the substrate surface oxidation layer (each with a top, a bottom and sides), wherein a first source region of the one source region is juxtaposed between first and second adjacent gates.

47. Each of the Accused Products also includes a gate oxide layer (thicker than the substrate surface oxidation layer) over the tops and sides of each of the polysilicon gates and a material layer, including one of an oxide and a metal contact, over the first source region and between the gate oxide layers on the sides of the polysilicon gates.

48. Purdue adopts and incorporates by reference as if fully stated herein, the attached exemplary claim chart (Exhibit D), which further describes and demonstrates how

Wolfspeed infringes at least claim 6 of the '112 Patent. In addition, Purdue alleges that Wolfspeed infringes one or more additional claims of the '112 Patent in a similar manner.

49. Wolfspeed is and has been aware of the '112 Patent and its coverage of SiC MOSFETs since as early as July 19, 2012, when the USPTO expressly notified Wolfspeed of the '112 Patent in connection with the prosecution of U.S. Patent Application Serial No. 12/788,592, and potentially earlier. Additionally, the '112 Patent has been cited during the prosecution of U.S. Patent Applications that led to the following Wolfspeed patents: US9673283, US9640617, US9570585, US9373617, and US9142662. Thus, Wolfspeed has been aware that its actions as to importers, distributors, resellers, wholesalers, retailers, and/or end users of the Accused Products would induce infringement, as early as July 19, 2012.

50. Despite such awareness of the '112 Patent and its coverage of SiC power MOSFETs, including at least the Accused Products, Wolfspeed continues to take active steps (*e.g.*, creating and disseminating the Accused Products and other SiC power MOSFETs with similar infringing technology, as well as product manuals, instructions, promotional and marketing materials, and/or technical materials to distributors, resellers, wholesalers, retailers, and end-users) encouraging others to infringe the '112 Patent with the specific intent to induce such infringement. For example, Wolfspeed directs customers to purchase the Accused Products from various distributors on its website, *e.g.* at <https://www.wolfspeed.com/products/power/sic-mosfets/1200v-silicon-carbide-mosfets>:

Apply Filters													
Package	+	Current Rating	+	R _{min} at 25°C	+								
Product SKU	Buy Online	Regional Group	Data Sheet	Blocking Voltage	Power at 25°C	Generation	Current Rating	Gate Charge Total	Output Capacitance	Total Power Dissipation (Pd)	Maximum Junction Temperature	Package	Remove
C2M0040120D			Data Sheet	1200 V	40 mΩ	Gen 2	80 A	115 nC	150 pF	330 W	150 °C	TO-247-3	No
C2M0080120D			Data Sheet	1200 V	40 mΩ	Gen 2	80 A	115 nC	150 pF	330 W	150 °C	TO-247-3	No
C2M0160120D			Data Sheet	1200 V	40 mΩ	Gen 2	80 A	115 nC	150 pF	330 W	150 °C	TO-247-3	No
C2M0280120D			Data Sheet	1200 V	40 mΩ	Gen 2	80 A	115 nC	150 pF	330 W	150 °C	TO-247-3	No
C2M0075120K			Data Sheet	1200 V	40 mΩ	Gen 2	80 A	115 nC	150 pF	330 W	150 °C	TO-247-4	Yes
C2M0075120J			Data Sheet	1200 V	40 mΩ	Gen 2	80 A	115 nC	150 pF	330 W	150 °C	TO-247-4	Yes
C2M0040120D - Distributors													X
Out of Stock													
Distributor	Stock*	Buy Online											
	0	Buy Now											
	0	Buy Now											
	0	Buy Now											
	0	Buy Now											
Powered By Octopart													* Stock values are subject to change
C2M0030120D			Data Sheet	1200 V	21 mΩ	Gen 3	81 A	181 nC	180 pF	468 W	170 °C	TO-247-3	Yes
C2M0150120J			Data Sheet	1200 V	21 mΩ	Gen 3	81 A	181 nC	180 pF	468 W	170 °C	TO-247-3	Yes
C2M0160120D			Data Sheet	1200 V	21 mΩ	Gen 3	81 A	181 nC	180 pF	468 W	170 °C	TO-247-3	Yes
C2M0160120J			Data Sheet	1200 V	21 mΩ	Gen 3	81 A	181 nC	180 pF	468 W	170 °C	TO-247-3	Yes
Where To Buy													
C2M0021120D			Data Sheet	1200 V	21 mΩ	Gen 3	81 A	181 nC	180 pF	468 W	170 °C	TO-247-3	Yes
C2M0025120D			Data Sheet	1200 V	29 mΩ	Gen 2	81 A	181 nC	220 pF	465 W	170 °C	TO-247-3	Yes

See also <https://www.wolfspeed.com/where-to->

buy?continent=na&country=us&productLine=power (listing Wolfspeed distributors);
<https://www.wolfspeed.com/power/products/sic-mosfets/1200v-silicon-carbide-mosfets>
(providing datasheets, application notes, test reports, and articles concerning the Accused
Products) (last visited Oct. 28, 2021).

51. Wolfspeed has continued making, using, offering for sale, selling, and importing the Accused Products despite an objectively high likelihood that its actions infringe at least one claim of the '112 Patent—a valid and enforceable patent, and such objective risk of infringement was known to Wolfspeed or so obvious that Wolfspeed should have known it. Therefore, Purdue is entitled to receive enhanced damages up to

three times the amount of actual damages for Wolfspeed's willful infringement pursuant to 35 U.S.C. § 284.

52. Wolfspeed's direct, indirect, and willful infringement of the '112 Patent has caused, and will continue to cause, substantial damage to Purdue. Purdue is, therefore, entitled to an award of damages adequate to compensate for Wolfspeed's infringement of the '112 Patent, but in no event less than a reasonable royalty for Wolfspeed's use and/or sale of Purdue's invention, together with pre- and post-judgment interest, attorneys' fees, and costs as fixed by the Court under 35 U.S.C. §§ 284 and 285.

JURY DEMAND

Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiff hereby demands a trial by jury on all issues triable as such.

PRAYER FOR RELIEF

WHEREFORE, PREMISES CONSIDERED, Purdue requests that this Court enter judgment in its favor and against Defendant Wolfspeed, Inc. as follows:

- A. Adjudging, finding, and declaring that Defendant has infringed the above-identified claims of each of the Patents-in-Suit under 35 U.S.C. § 271;
- B. Awarding the past and future damages arising out of Defendant's infringement of the Patents-in-Suit to Purdue in an amount no less than a reasonable royalty, together with prejudgment and post-judgment interest, in an amount according to proof;

- C. Adjudging, finding, and declaring that Defendant's infringement is willful and awarding enhanced damages and fees as a result of that willfulness under 35 U.S.C. § 284;
- D. Adjudging, finding, and declaring that the Patents-in-Suit are valid and enforceable;
- E. Awarding attorney's fees, costs, or other damages pursuant to 35 U.S.C. §§ 284 or 285 or as otherwise permitted by law; and
- F. Granting Purdue such other further relief as is just and proper, or as the Court deems appropriate.

This, the 28th day of October, 2021.

/s/ Allison Mullins
Allison Mullins
N.C. State Bar No. 23430
L. Cooper Harrell
N.C. State Bar No. 27875
TURNING POINT LITIGATION
MULLINS DUNCAN HARRELL &
RUSSELL PLLC
300 North Greene Street, Suite 2000
Greensboro, NC 27401
Telephone: 336-645-3320
Facsimile: 336-645-3330
amullins@turningpointlit.com
charrell@turningpointlit.com

OF COUNSEL:

Alfonso G. Chan (Texas Bar No. 24012408)
achan@shorechan.com
Michael W. Shore (Texas Bar No. 18294915)
mshore@shorechan.com
Samuel E. Joyner (Texas 24036865)
sjoyner@shorechan.com
Raphael Chabaneix (Texas 24118352)
rchabaneix@shorechan.com
SHORE CHAN LLP
901 Main Street, Suite 3300
Dallas, Texas 75202
Telephone: 214-593-9110
Fax: 214-593-9111

COUNSEL FOR PLAINTIFF
THE TRUSTEES OF PURDUE UNIVERSITY